

WHAT IS CLAIMED IS:

1. A rotary press for laying a pattern of a material on a support strip, the press comprising:

a rotatable working cylinder having a first axis and a periphery; a drive for driving the working cylinder to rotate around the first axis;

5 a heater and temperature controller for the working cylinder;

embossing plates holding patterns of the material to be laid on the support, the embossing plates being held on the working cylinder;

10 an anvil cylinder having a periphery and being placed such that the peripheries of the cylinders are in opposition and the peripheries are spaced apart; the anvil cylinder having a second axis, a shaft through the anvil cylinder, bearings between the anvil cylinder and the shaft thereof;

15 a prestress application assembly operable to exert a defined prestress between the working cylinder and the anvil cylinder;

15 a space adjustment device connected with at least one of the cylinders to adjust the space between the working cylinder and the anvil cylinder, the space adjustment device being independent from the prestress application assembly.

2. The press of claim 1, further comprising a frame; the first pivot axis of the working cylinder and the second axis of the anvil cylinder are rigidly locked to the frame;

5 a rocking member pivotably attached to the frame at a third pivot axis that is parallel to the working cylinder and the anvil cylinder, the rocking member being pivotable on the third pivot axis so as to be part of the prestress application assembly.

3. The press of claim 2, further comprising a winch engaged with the rocking member for applying force to the rocking member to cause the prestress

application assembly to exert the defined prestress between the working cylinder and the anvil cylinder.

4. The press of claim 3, further comprising a lever disposed between the winch and the rocking member, wherein the winch moves the rocking member to cause the exertion of the prestress.

5. The press of claim 1, wherein the device for adjusting the space between the working cylinder and the anvil cylinder comprises:

a first cylindrical part rigid with the working cylinder;

a second cylindrical part mounted on a part of the shaft of the anvil cylinder

5 being in contact with the first cylindrical part at the working cylinder and being independently movable with respect to the anvil cylinder, the shaft of the anvil cylinder having a pivot portion on which the second cylindrical part is defined, and the pivot portion is eccentric with respect to the second axis of the anvil cylinder;

10 an angle adjustment device for adjusting the angular position of the eccentric pivot portion of the second shaft of the anvil cylinder for adjusting the space between the peripheries of the working cylinder and the anvil cylinder to a selected extent.

6. The press of claim 5, further comprising two of the first cylindrical parts respectively at opposite ends of the working cylinder; two of the second cylindrical parts respectively at opposite ends of the anvil cylinder and rotatable independently of the anvil cylinder; and two of the eccentric pivot portions of the shaft of the anvil cylinder and located at the opposite ends of the anvil cylinder, wherein each of the eccentric pivot portions of the shaft of the anvil cylinder is adjustable in its angular position with respect to the other of the eccentric pivot

portions; and an angle adjustment device operable for independently adjusting the respective angular positions of each of the eccentric pivot portions.

7. The press of claim 1, wherein the device for heating and controlling the temperature of the working cylinder comprises:

the working cylinder having an external tubular wall defining the periphery thereof; a cylindrical heating housing in thermal contact with the external wall of the  
5 working cylinder.

8. The press of claim 7, further comprising a plurality of concentric, radially spaced apart, tubular walls in the cylindrical heating housing for defining a central space and concentric surrounding spaces defined by in between the tubular walls; and communication holes at the walls between the concentric chambers.

9. The press of claim 8, further comprising the central and surrounding spaces having ends which are open;

annular flanges positioned to close the ends of the annular spaces;

a heating medium feed pipe and an axial exhaust pipe to the housing for  
5 transfer of heating medium to and from the housing.

10. The press of claim 9, wherein the heating housing has a cylindrical wall around and defining the heating housing; the annular flanges are located at the ends of the cylindrical heating housing and radially inward of the heating housing, wherein the flanges have a radially outward facing surface and the heating housing  
5 has a radially inward facing surface at the ends thereof for contacting the radially outward facing surface of the flanges, the surfaces between the housing and the flange are in contact and are cone-shaped surfaces.

11. The press of claim 10, wherein the cone-shaped surfaces are angled such that the half angle of the cone-shaped surfaces of contact corresponds to the hypotenuse angle of a right angle triangle and other sides correspond to the longitudinal thermal expansion of a selected point of one of the surfaces in contact with respect to the median axis of the heating housing at a selected temperature, with respect to the radial expansion of the given point at the same temperature enabling the surfaces of contact of the housing and the flange to remain joined regardless of the temperature in the heating housing.

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12. The press of claim 10, wherein the wall of the heating housing and the flanges are respectively comprised with materials with different respective heat caused expansions.

13. The press of claim 1, further comprising heat energy transfer isolating elements at selected locations between the heating housing and the embossing plates which are held to the working cylinder.

14. The press of claim 1, further comprising structures in the embossing plates adapted for slowing heat transfer through the embossing plates.

15. The press of claim 1, further comprising blocks under the embossing plates at the working cylinder for slowing heat transfer.

16. The press of claim 15, wherein the blocks are comprised of sandwich type compound material.

17. The press of claim 14, wherein the blocks are spring like for compensating possible errors of concentricity of the stamping tool.

18. The press of claim 1, further comprising blocks in profile shape along a tool generating line for fixing the embossing plates, and the profiles of the blocks having an inclined face toward the embossing plates for providing precise positioning of the embossing plate to allow reproduction in the radial direction and  
5 also angularly against a reference face of the holding tool.

19. The press of claim 18, wherein there is at least one of the profiles and comprised of elastic material and extending either the entire length or over part of the length of the tool generating line.